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10/750,755	01/05/2004	Jiin-Huey Chern Lin	LINJ3054/EM	1696

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EXAMINER
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JENKINS, DANIEL J

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 01/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/750,755

**Applicant(s)**

CHERN LIN ET AL.

**Examiner**

Daniel J. Jenkins

**Art Unit**

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)          |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. <u>9/14/05</u> .                                     |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____.  | 6) <input type="checkbox"/> Other: _____.                                   |

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1. The Office makes a new rejection which is accordingly not made final.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 4, 5, 6, 12, 13, 18, 19 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 4, 5, 12, 13, 18 and 19, the limitation to "substantially free from V" or "substantially free from Al" fail to further limit the independent claim since the independent claims include the transitional phrase "consisting essentially of."

Claim 6 is considered indefinite since it adds further elements not specified in claim 1 (e.g., Fe, Cr, Al, note that claim 1 is closed in the use of the transitional phrase "consisting essentially of", and includes limitations that exclude Bi of which is included in claim 1.

Claim 20 is considered indefinite for the same reasons as claim 6.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 9-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent 62-199744A (JP'744).

JP'744 discloses a method of improving the castability of a titanium alloy since it discloses a titanium alloy consisting essentially of 0.01-5 wt% Bi (e.g. 0.05-2.00% Bi, see the constitution portion of the abstract), at least one alloy selected from the group consisting of Mo, Nb, Ta, Zr, and Hf (e.g. Nb, Ta, Zr, and Hf, see the abstract), and the balance Ti.

With respect to claim 11, JP'744 discloses a method of improving the castability of a titanium alloy since they disclose a titanium alloy consisting essentially of 0.01-5wt% Bi (e.g., 0.05-2.00 % Bi, see the constitution portion of the abstract), at least one alloy selected from the group consisting of Mo, Nb, Ta, Zr, and Hf (e.g., Nb, Ta, Zr, and Hf, see the abstract), at least one eutectoid beta stabilizing agent selected from the group consisting of Fe, Cr, Mn, Co, Ni, Cu, Ag, Au, Pd, Si, and Sn (e.g., the Pt group elements including Ag, Au, and Pd, see the constitution portion of the abstract), and the balance Ti.

Concerning claim 10, JP'744 discloses 0.1-3wt% Bi (see the abstract).

As to claim 12, JP'744 discloses the alloy composition as being substantially free from V (see the "or" language on line 3 of the constitution section of the abstract).

As to claim 13, JP'744 further discloses the alloy composition as being substantially free from Al (since Al is not mentioned in the abstract).

Regarding claim 14, JP'744 discloses compositions including Ti and Nb; Ti and Zr; and Ti, Nb, and Zr.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-8 and 15-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'744 in view of Prasad (US Pat. No. 5,091,148).

JP'744 discloses the invention substantially as claimed (see paragraph 5 above).

However, JP'744 does not disclose wherein the alloy is in the form of a medical device.

Prasad discloses an analogous titanium alloy for forming a medical device (e.g., a dental casting, see abstract). It would have been obvious to have modified the alloy of JP'744 into the form of a medical device as suggested by Prasad since Prasad discloses that an analogous titanium alloy can be used to form a medical device.

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With respect to claim 3, JP'744 discloses a titanium alloy consisting essentially of 0.01-5 wt% Bi (e.g., 0.05-2.00 % Bi, see the constitution portion of the abstract), at least one alloy selected from the group consisting of Mo, Nb, Ta, Zr, and Hf (e.g., Nb, Ta, Zr, and Hf, see the abstract), at least one eutectoid beta stabilizing agent selected from the group consisting of Fe, Cr, Mn, Co, Ni, Cu, Ag, Au, Pd, Si, and Sn (e.g., the Pt group elements including Ag, Au, and Pd, see the constitution portion of the abstract), and the balance Ti. JP'744 fails to specify the alloy as forming a medical device. Prasad discloses an analogous titanium alloy for forming a medical device (e.g., a dental casting, see abstract). It would have been obvious to have modified the alloy of JP'744 into the form a medical device as suggested by Prasad since Prasad discloses that an analogous titanium alloy can be used to form a medical device.

With respect to claim 15, JP'744 further discloses a method of making an article using a titanium alloy consisting essentially of 0.01-5wt% Bi (e.g., 0.05-2.00 % Bi, see the constitution portion of the abstract), at least one alloy selected from the group consisting of Mo, Nb, Ta, Zr, and Hf (e.g., Nb, Ta, Zr, and Hf, see the abstract), and the balance Ti. JP'744 fails to specify a method of making a medical device including casting the titanium alloy. Prasad discloses a method of making a medical device (e.g., a dental casting, see the abstract) by casting using an analogous titanium alloy. It would have been obvious to modify the method of JP'744 so as to have formed a medical device by casting as suggested by Prasad since Prasad discloses that an analogous titanium alloy can be used in a method for forming a medical device using an analogous titanium alloy.

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With respect to claim 17, JP'744 discloses a method of making an article using a titanium alloy consisting essentially of 0.01-5wt% Bi (e.g., 0.05-2.00 % Bi, see the constitution portion of the abstract), at least one eutectoid beta stabilizing agent selected from the group consisting of Mo, Nb, Ta, Zr, and Hf (e.g., Nb, Ta, Zr, and Hf, see the abstract), at least one eutectoid beta stabilizing agent selected from the group consisting of Fe, Cr, Mn, Co, Ni, Cu, Ag, Au, Pd, Si, and Sn (e.g., the Pt group elements including Ag, Au, and Pd, see the constitution portion of the abstract), and the balance Ti. JP'744 fails to specify a method of making a medical device including casting the titanium alloy. Prasad discloses a method of making a medical device (e.g., a dental casting, see the abstract) by casting using an analogous titanium alloy. It would have been obvious to modify the method of JP'744 so as to have formed a medical device by casting as suggested by Prasad since Prasad discloses that an analogous titanium alloy can be used in a method for forming a medical device using an analogous titanium alloy.

In regard to claims 2 and 16, JP'744 discloses 0.1-3wt% bi (see the abstract).

In regard to claims 4 and 18, JP'744 discloses the alloy composition as being substantially free from V (see the "or" language on line 3 of the constitution section of the abstract).

In regard to claims 5 and 19, JP'744 discloses the alloy composition as being substantially free from Al (since Al is not mentioned in the abstract).

In regard to claims 6 and 20, JP'744 discloses compositions including: Ti and Nb; Ti and Zr; and Ti, Nb, and Zr.

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In regard to claims 7, 8, 21 and 22, Prasad discloses a dental casting of which can be considered a medical implant.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Jenkins whose telephone number is 571-272-1242. The examiner can normally be reached on M-TH6:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1242. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel J. Jenkins  
Primary Examiner  
Art Unit 1742

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